FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	DOCKET FILE	COPY ORIGINAL 3 1002
Advanced Television Systems and Their Impact upon the Existing Television Broadcast		JUN 1 3 1997. Federal Communications Commission Office of Secretary
Service)	

PETITION FOR RECONSIDERATION

HSN, Inc. ("HSNI"), by its attorneys and pursuant to Section 1.106 of the Commission's Rules, petitions for reconsideration of the Fifth and Sixth Reports and Orders in the captioned proceeding. 1/ HSNI seeks reconsideration on two limited issues:

- 1. The need to adjust the DTV allotments in the Philadelphia area to avoid substantial, material interference to both NTSC and DTV stations; and
- 2. The need to protect lower powered UHF DTV stations by permitting lower powered UHF DTV stations to increase power or by limiting DTV stations' power.

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Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, Fifth Report and Order, FCC 97-116 (April 21, 1997); Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, Sixth Report and Order, FCC 97-115 (April 21, 1997).

1. THE DTV TABLE OF ALLOTMENTS MUST BE MODIFIED TO PERMIT ADEQUATE SERVICE BY WHSP IN THE PHILADELPHIA AREA.

HSNI's engineers have studied the DTV Table of Allotments in Philadelphia, focusing on WHSP, Channel 65, Vineland, New Jersey, which is licensed to HSNI subsidiary SKVI Broadcasting Partnership. WHSP currently operates from an antenna site that is approximately 30 miles outside Philadelphia. Based on an engineering analysis (Attachment 1), HSNI has determined that WHSP's NTSC operation will experience substantial adjacent channel interference from the assignment of DTV Channel 64 (and 1,000 kW power) to Philadelphia station WPVI. Specifically, under the FCC's methodology, which assumes that viewers will use a directional antenna. WPVI's operation on Channel 64 will cause interference to WHSP in an area covering 763 square kilometers and serving 168,000 viewers. See Attachment 1. However, an analysis under the more likely scenario where viewers are assumed to use non-directional reception equipment, and based on the same Longley-Rice model used by the Commission, HSNI's engineers estimate that the interference that WPVI's DTV operation would cause to WHSP would affect service to 574,123 viewers. Id.

There are three possible options for ameliorating this unacceptable level of interference: (1) reduce power for the WPVI DTV allotment on Channel 64 from 1,000 kW to 50-100 kW; (2) change the allotment for WPVI from Channel 64 to another channel; or (3) permit the relocation of WHSP to the Philadelphia antenna farm, where most Philidelphia area stations' towers are located.

HSNI's engineers have been unable to evaluate the feasibility of the first two options because the Commission has not yet made available OET Bulletin 69, which will set forth critical information for determining the level of interference for DTV allotments. 2/ Because the Commission has failed to make these critical principles available during the period in which parties may seek reconsideration of the DTV table, and because the Commission has access to the principles underlying OET Bulletin 69, if not the actual document, HSNI requests that the Commission undertake to determine the feasibility of reducing power for WPVI's DTV operation or moving WPVI's DTV operation to another channel to address the serious interference that the current WPVI DTV channel allotment would cause WHSP's NTSC operation. The Commission has recognized that, during the transition period, "maintaining existing [NTSC] service is extremely important, and that the public interest would be served by avoiding any substantial dislocation of service to existing viewers." Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Fourth Further Notice of Proposed Rulemaking and Third Notice of Inquiry, 10 FCC Rcd 10,540, 10,546 (1995).

In the absence of OET Bulletin 69, it is not possible to prepare an engineering analysis of the DTV table to be used to recommend modification of the table to relieve the interference problems in the Philadelphia area. The Commission's new rules for evaluating DTV coverage areas refer to OET bulletin in four different contexts: 73.622(e) (defining DTV service areas); 73.623(c)(2) (listing minimum technical criteria for modifying DTV allotments); 74.703(a) (specifying interference standards for requests to modify LPTV facilities) and 74.705(e) (specifying interference standards). HSN respectfully requests an additional 90 days after the release of OET Bulletin 69 in which to submit alternative proposals.

The third alternative, permitting WHSP to move to the Philadelphia antenna farm, would resolve interference concerns without requiring a reduction in power or reassignment of channels. To move to the antenna farm, WHSP would require a waiver of the NTSC short-spacing limitations with respect to WTVE, Reading, Pennsylvania. Based on HSNI's engineering analysis, see Attachment 1, WHSP should be able to demonstrate (by specifying a directional antenna and using terrain shielding) that its short-spaced operation will not cause interference to WTVE. WHSP also may need a technical waiver of the rules to demonstrate that it will continue to provide an adequate quality signal to its city of license. Vineland, New Jersey. WHSP's engineers anticipate that the station will be able to demonstrate compliance with the coverage requirements for the station's city of license by using the Longley-Rice signal propagation model. Given the serious interference problems that would be cured by these technical waivers and lack of any actual harm to other stations or viewers based on these waivers, the public interest favors moving WHSP's NTSC operation to the Philadelphia antenna farm. See Attachment 1. This solution has the added benefit of promoting the rapid implementation of DTV because -- unlike the other potential solutions -- this proposal will not require a reexamination of DTV channel assignments in the congested Northeast corridor.

WHSP's DTV allotment (Channel 66) also has a serious problem.

WHSP's DTV operation on Channel 66 would experience material interference from WCAU's adjacent channel DTV operation on Channel 67. See Attachment 1. 3/

In addition to its interference problem, WHSP has been assigned a DTV channel outside the core spectrum. Thus, at the end of the transition period, WHSP will have to

Relocation of WHSP's DTV transmitter site to the Philadelphia antenna farm would resolve this interference problem. <u>4</u>/

II. THE COMMISSION SHOULD PROTECT LOWER POWERED UHF STATIONS BY PERMITTING THESE STATIONS TO INCREASE POWER OR BY LIMITING THE MAXIMUM POWER FOR DTV STATIONS

HSNI is concerned that the great disparity in DTV power levels will cause many UHF DTV stations to be unviewable by the average consumer. HSNI recognizes and appreciates the steps already taken by the Commission to address this problem, but HSNI's engineers continue to believe that the very high power levels of some stations will set the standard for reception equipment, a design decision which would save consumers money — because of the reduced precision required to receive more powerful signals — but would mean that UHF DTV stations with significantly less power would be receivable only by those households with enhanced reception equipment.

move to a different channel. It is grossly inequitable and arbitrary for the Commission to require stations such as WHSP to incur the significant expense and disruption in service associated with construction of another facility to accommodate a new channel at the end of the transition period. We urge the Commission to require new users of the recaptured spectrum to compensate licensees for moves of this type, as originally proposed in the Sixth Further Notice of Proposed Rulemaking, 11 FCC Rcd 10,968, 10,969 (1996). Due to the unavailability of OET Bulletin 69, HSN has not been able to determine whether there is another channel that could be used for WHSP's DTV service.

If WHSP's NTSC transmitter site (for operation on Channel 65) were moved to the antenna farm, but its DTV transmitter site (for operation on Channel 66) were not moved, then WHSP's NTSC and DTV operations would cause interference to each other. If WHSP's NTSC and DTV operations were both moved to the Philadelphia antenna farm, the NTSC and DTV operations would not cause interference to each other.

HSNI urges the Commission to revisit this issue, and to lower the maximum power for DTV stations to reduce the enormous power discrepancies that currently exist among UHF stations. For example, in the Baltimore market, there are (among others) three UHF DTV stations authorized to operate at 1,000 kW and three UHF DTV stations — including a station licensed to an HSNI subsidiary — authorized to operate at 50kW. See Sixth Report and Order at Appendix B. Where certain stations in a market are authorized to operate with 20 times the power of other market stations, HSNI fears that DTV television receivers will not be manufactured with the precision required to receive the lower powered stations. 5/

The Commission also should establish a streamlined process for lower powered UHF stations to increase power to maximize their DTV facilities. In addition, as a means of protecting lower powered UHF stations, the Commission should establish minimum standards for receiver equipment to insure that even lower powered DTV stations will be readily available to consumers on a standard DTV set and without supplemental equipment.

In view of the foregoing, HSNI seeks limited reconsideration of the Fifth and Sixth Reports and Orders in the captioned proceeding, and requests that the Commission: (1) revise the DTV Table of Allotments to permit relocation of WHSP's NTSC and DTV transmitters to the Philadelphia antenna farm; and (2) adjust its DTV

^{5/} HSN also seeks clarification that the maximum power for DTV stations is 1,000 kW, as set forth in Section 73.622(f) of the rules. The rules provide that DTV stations can maximize their power to match the largest NTSC Grade B contour in their markets, but it should be made clear that applications for such maximization are subject the the power limits set forth in the rules.

rules to protect the reception of lower powered UHF DTV stations and to encourage lower powered DTV stations to maximize their facilities.

Respectfully submitted,

HSNI, Inc.

William S. Reyner, Jr.

Jacqueline P. Cleary

HOGAN & HARTSON L.L.P. 555 13th Street, N.W. Washington, DC 20554

Its Attorneys

Dated: June 13, 1997



ENGINEERING STATEMENT

of

John F.X. Browne, P.E.

re

WHSP - Vineland, NJ

WHSP is licensed to SKVI Broadcasting Partnership and operates on Channel 65 in the Philadelphia DMA from a transmitter site near Vineland, NJ. This site is approximately 30 miles from the city of Philadelphia. WHSP has been allotted DTV Channel 66.

In its Sixth Report & Order in MM Docket 87-268, the Commission has assigned Channel 64 as the DTV allotment for WPVI, Channel 6 at Philadelphia. The allotment permits a maximum DTV ERP of 1,000 kW on Channel 64.

An interference analysis has been conducted to determine the level of adjacent-channel interference that can be expected to the NTSC service of WHSP in the Philadelphia metro area due to the presence of this extremely high-power and geographically close adjacent-channel facility. The result of this analysis is attached as Figure 1. It shows excessive interference to WHSP in the Philadelphia metro area with a predicted loss area of approximately 800 sq km in which reside approximately 168,000 persons.

 $^{^{1/2}}$ At the time that this statement was being prepared, OET-69 was unavailable.

^{2/} TAS software, which we believe emulates the Commission's methodologies, was employed.

2



An alternative study^{3/} was conducted based on the assumption of using a non-directional receiving antenna. This approach may have validity as the viewers in the metropolitan area would typically be employing an indoor type of antenna. Using this approach the total viewers affected by interference increases to 574,123.

Alternative solutions to this problem include:

- changing the WPVI DTV allotment a non-adjacent channel;
- relocating the WHSP facility to a site essentially colocated with the WPVI DTV facility.

The first alternative is a matter which would involve the whole Northeast corridor where numerous allotment issues are known to exist. The second is one that can be investigated in light of the Commission's interference criteria. Such an analysis was undertaken.

Figure 2 is a copy of the interference analysis based on such a relocation. While a site in the Philadelphia "antenna farm" does not meet the Commission's current NTSC spacing criteria, it is believed that the only station potentially affected by the short-spacing (WTVE, Channel 51, Reading, PA) could be protected by use of a directional antenna. SKVI intends to file an application with the Commission seeking such relocation accompanied by appropriate technical showings to support the waiver requests. A waiver may also be required to permit a showing of coverage to the principal city (Vineland) by use of a detailed terrain dependent propagation analysis (Longley-Rice).

The WHSP DTV allotment is on Channel 66, adjacent to its Channel 65 NTSC authorization. DTV Channel 67 is also assigned in the Philadelphia area as the DTV allotment for NTSC station WPSG, Channel 10, at an ERP of 758 kW. As in the case of DTV Channel 64 and WHSP channel 65, severe interference will be caused to the Channel 66 WHSP DTV facility by the proposed DTV facility on Channel 67 in the Philadelphia metropolitan area⁴. This interference is shown in Figure 3.

^{3/} Dataworld study

^{4&#}x27; Likewise, significant interference will be caused to the reception of the channel 67 DTV facility by the Vineland Channel 66 DTV facility.

3

Relocating the WHSP-DTV facility to the Philadelphia "antenna farm", colocated with WHSP and other DTV facilities on Channel 64 and 65 would eliminate this interference concern. Figure 4 presents an interference analysis based on this relocation.

Summary

In conclusion, it is recommended that the DTV allotment of WHSP on Channel 66 be specified at coordinates:

42° 02' 36" N Lat 75° 14' 08" W Long

in order to reduce the mutual interference problems <u>vis-à-vis</u> other DTV allotments in the Philadelphia area. Furthermore, the NTSC allotment of WHSP should be re-specified at the same site with a proviso that equivalent protection be afforded to WTVE including the use of a directional antenna, if necessary.

Certification

This statement with associated exhibits was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are believed to be true.

John F.X. Browne, P.E.

June 11, 1997

Attachments: Figures 1-4

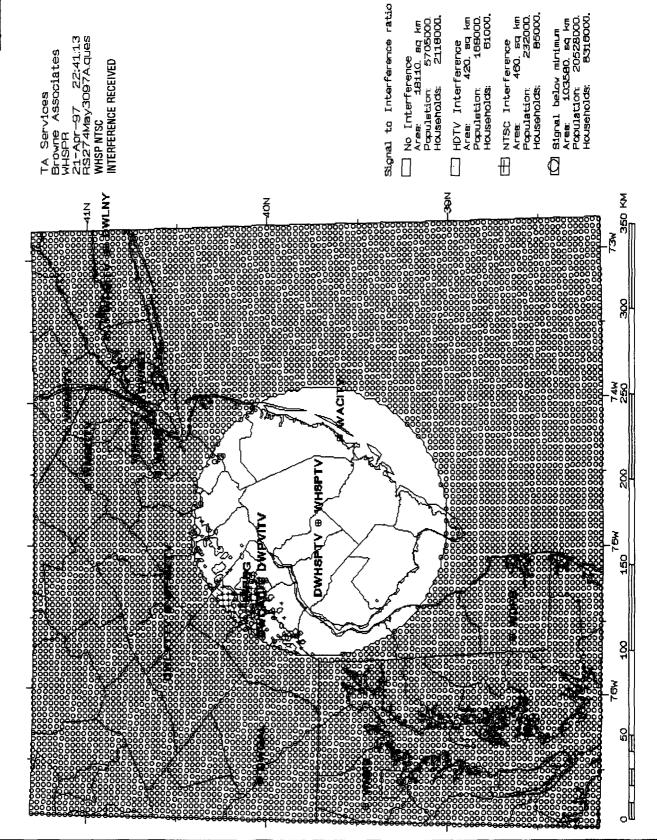


Figure 2 John F.X. Browne & Associates, Inc. Page 1 Bloomfield Hills, Michigan June 7, 1997 Latitude: 40-02-36 TITLE: WHSP Channel 66 Zone I Longitude: 75-14-08 Database: DW 05/21/97 Safety zone: 120 km Chan ERP HAAT-m Latitude BR-to Dist. Req. Call Auth Licensee name City of License St FCC File No. Zone (kW) HAMSL Longitude -from (km) (km) WTVE CP READING BROADCASTING, 51 o 5000 395 40-19-36 308.5 50.81 80.50 READING PA BMPCT-940811KL DABT 533 75-42-15 128.2 -29.7 SHORT CP Granted 05/03/95 Per FCC release dated 05/08/95; CP Granted 05/03/95 Per FC C release dated 05/08/95; BMPCT-961021KE EXT GRD 12/18/96(43894-12/23/96); Ele ctrical BT: 1.00 degrees; Elliptical polarization; DA: Dielectric TFU36JDAS/V @ 135 deq; NEW APP ADAMS COMMUNICATIONS 51 o 5000 153 40-17-15 296.0 62.43 80.50 PA BPCT-940630KG I BT READING 302 75-53-45 115.6 -18.1 SHORT MUTUALLY EXCLUSIVE WITH WTVE(TV); Electrical BT: .50 degrees; Horizontal pola rization; Ant: Dielectric TFU-34E; WIVE LIC READING BROADCASTING, 51 0 1450 229 40-21-15 301.7 66.18 80.50 READING 75-53-56 121.3 -14.3 SHORT TLNW LIC NEW JERSEY PUBLIC BCG *52 - 1392 271 40-17-00 59.9 53.63 80.50 TRENTON NJ 306 74-41-21 240.3 -26.9 SHORT I WNJB LIC NJ PUBLIC BCG AUTHORI *58 o 1321 221 40-37-17 43.7 89.33 80.50 NEW BRUNSWICK NJ BLET-860618KE I 281 74-30-15 224.2 8.830 CLOSE WGAL 58 D 366 415 40-02-04 270.0 118.0 I LANCASTER PA 76-37-08 89.1 DTV DOC-87-268; DTV Channel; APP IMAGINE TELEVISION 59 - 700 242 39-43-41 136.3 48.43 80.50 VINELAND NJ BPCT-960920YV I DABT 269 74-50-39 316.5 -32.1 SHORT AMENDED-10/28/96; Electrical BT: .75 degrees; Horizontal polarization; DA: An drew 3HSOC @ 210 deg; 59 D 64.5 WBPH-TV 284 40-33-54 343.4 60.48 BETHLEHEM PA I DA 430 75-26-26 163.3 DTV DOC-87-268; DTV Channel; SUBJECT TO TV FREEZE 59 -NJ I ALLOC 39-29-12 163.5 64.46 80.50 VINELAND 75-01-17 343.6 -16.0 SHORT released 05/18/89; Filing window Closing date: ; APP MARRI BROADCASTING, L 59 - 1500 58 39-25-19 165.0 71.40 80.50 NJ BPCT-960920LO I BT VINELAND 77 75-01-14 345.2 -9.10 SHORT Electrical BT: .50 degrees; Horizontal polarization; Ant: Andrew ATW30H2HT015

61 0 3000

I

BRCT-940328KE GRD 10/7/94(22009-10/27/94); Was WBOT-TV 02/04/86;

292 39-41-43 187.9 39.01

NTSC

312 75-17-55 7.9

WTGI-TV LIC DELAWARE VALLEY BCRS

WILMINGTON DE

John F.X. Browne & Associates, Inc. Page 2
Bloomfield Hills, Michigan June 7, 1997

TITLE: WHSP Latitude: 40-02-36 Channel 66 Zone I Longitude: 75-14-08

Call Auth Licensee name Chan ERP HAAT-m Latitude BR-to Dist. City of License St FCC File No. Zone (kW) HAMSL Longitude -from (km) ______

62 D 50.0 302 40-33-58 343.8 60.46

ALLENTOWN PA T 75-26-06 163.7 DTV

DOC-87-268; DTV Channel;

WACI APP GARDEN STATE COMMUNIC 62 - 5000 307 39-36-15 123.1 88.95 80.50 ATLANTIC CITY NJ BMPCT-950203KF I BT 313 74-21-59 303.6 8.450 CLOSE Electrical BT: .50 degrees; Horizontal polarization; Ant: Dielectric TFU~36J;

WACI CP GARDEN STATE COMMUNIC 62 - 5000 133 39-36-48 119.6 95.89 80.50 ATLANTIC CITY NJ BPCT-930805KE I DA 145 74-15-50 300.3 15.39 CLOSE Horizontal polarization; DA: Bogner ODD930805KE @ 0 deq;

WFPT LIC MARYLAND PUBLIC BCG C *62 o 3390 138 39-17-53 246.0 198.8 80.50 FREDERICK MD BLET-931014KE I DABT 276 77-20-35 64.7 118.3 CLEAR WFPT BRET-960531LA GRD 9/30/96 43843(10/9/96); Electrical BT: -.49 degrees; Ellipti cal polarization; DA: Dielectric ODD931014KE @ 0 deg;

WMBC-TV LIC MOUNTAIN BROADCASTING 63 o 2190 223 41-00-36 26.6 120.3 80.50 NJ BLCT-940913KE I BT 485 74-35-39 207.0 39.79 CLEAR Call Granted 04/05/91 Per FCC release #155 dated 04/05/91; Electrical BT: .75 degrees; Horizontal polarization; Ant: Andrew ALP32H3HSOC63;

64 D 1000 332 40-02-39 282.1 .440 WPVI-TV PHILADELPHIA PA 417 75-14-26 102.1 DTV DOC-87-268; DTV Channel;

WDPB LIC WHYY, INC. *64 - 191 195 38-39-15 191.9 157.6 80.50 SEAFORD DE I DA 75-36-42 11 7 77 06 CLEAR I DA 75-36-42 11.7 77.06 CLEAR BRET-940401LO GRD 7/29/94(21947-8/9/94); DA: Bogner ODD821230KT @ 0 deg;

WSWB-TV CP EHRHARDT BROADCASTING 64 0 8.00 374 41-26-09 345.2 160.1 80.50 SCRANTON PA BMPCT-890720KE I DABT 731 75-43-33 164.9 79.55 CLEAR CP Granted 07/18/95 Per FCC release #* dated 07/28/95; CP Granted 07/18/95 Per FCC release #* dated 07/28/95; BMPCT-970306KE EXT 23952-3/19/97; Call Granted 05/19/88 Per FCC release #169 dated 05/23/88; Electrical BT: .50 degrees; Ho rizontal polarization; DA: Bogner B8UA @ 190 deg;

WSWB-TV APP EHRHARDT BROADCASTING 64 0 11.5 312 41-26-12 345.2 160.1 80.50 671 75-43-34 164.9 79.64 CLEAR PA BMPCT-960417KE I DABT SCRANTON Call Granted 05/19/88 Per FCC release #169 dated 05/23/88; Electrical BT: .50 degrees; Horizontal polarization; DA: Bogner B8UA @ 120 deg;

WHSP-TV LIC SKVI BROADCASTING PAR 65 - 3750 280 39-44-07 135.4 48.02 88.50 VINELAND I 74-50-29 315.7 -40.5 SHORT Was WHSP 02/22/93 Per FCC release #199 dated 02/26/93;

APP SKVI BROADCASTING PAR 65 - 5000 280 39-44-07 135.4 48.02 88.50 NJ BPCT-960716KJ I BT 310 74-50-29 315.7 -40.5 SHORT VINELAND Electrical BT: .70 degrees; Circular polarization; Ant: Dielectric TFU37WTT/C PR:

John F.X. Browne & Associates, Inc.

Bloomfield Hills, Michigan

June 7, 1997

Latitude: 40-02-36 TITLE: WHSP Channel 66 Zone I Longitude: 75-14-08

Call Auth Licensee name Chan ERP HAAT-m Latitude BR-to Dist. Req. City of License St FCC File No. Zone (kW) HAMSL Longitude -from (km) (km) WHSP-TV 66 D 103 280 39-44-07 135.4 48.02 196.3 VINELAND NJ 74-50-29 315.7 -148 SHORT Т DOC-87-268; DTV Channel;

WVVI LIC WVVI(TV), INC. 66 + 4370 168 38-47-16 232.9 227.9 217.3 MANASSAS VA BLCT-960516KE I BT 255 77-19-49 51.5 10.63 CLOSE Was WTKK 06/06/94 Per FCC release #232 dated 06/17/94; Electrical BT: .80 deg rees; Horizontal polarization; Ant: Sys w/Reliabil. SWHPT300M/66;

WCAU 67 D 758 354 40-02-31 211.6 .180 32.20 PHILADELPHIA PA 422 75-14-12 31.6 32.02 CoLoc I DOC-87-268; DTV Channel;

WMPB LIC MARYLAND PUBLIC BCG C *67 - 1000 250 39-27-01 243.9 147.6 88.50 76-46-37 62.9 59.08 CLEAR BALTIMORE MD BRET-960531LC GRD 9/30/96 43843(10/9/96);

WHSE-TV LIC SKNJ BROADCASTING PAR 68 o 2630 439 40-44-54 53.1 131.8 80.50 NEWARK NJ BLCT-950901KG I DABT 452 73-59-10 233.9 51.31 CLEAR Was WHSE 02/22/93 Per FCC release #199 dated 02/26/93; Electrical BT: .70 deg rees; Elliptical polarization; DA: Dielectric ODD950901KG @ 285 deg;

WHSE-TV APP SKNJ BROADCASTING PAR 68 0 5000 439 40-44-54 53.1 131.8 80.50 NEWARK NJ BPCT-960716KK I DABT 452 73-59-10 233.9 51.31 CLEAR Electrical BT: .70 degrees; Circular polarization; DA: Dielectric TFU36ETTVP0 6 @ 300 deg;

WFMZ-TV LIC MARANATHA BROADCASTIN 69 o 1078 313 40-33-54 343.4 60.48 80.50 ALLENTOWN PA BLCT-931029KZ I DABT 464 75-26-26 163.3 -20.0 SHORT Electrical BT: .75 degrees; Horizontal polarization; DA: Andrew ODD931029KZ @ 160 deq;

WFMZ-TV APP MARANATHA BROADCASTIN 69 1783 313 40-33-54 343.4 60.48 80.50 ALLENTOWN PA BMPCT-960515KE I DABT 464 75-26-26 163.3 -20.0 SHORT Electrical BT: .75 degrees; Horizontal polarization; DA: Andrew ALP28M3 @ 160 deq;

48-56-30 51.4 1873 80.50 ALLOC 70 ALLOC GRAND FALLS-GAND NF II 55-03-00 245.7 1793 CLEAR Filing window Closing date: ;

49-11-00 48.2 1730 71 ALLOC DEER LAKE NF II 57-26-00 240.7 NTSC Filing window Closing date: ;

ALLOC DELETION PROPOSED 73 O TECATE BJ II 32-34-30 270.6 3765 80.50 116-37-30 65.3 3685 CLEAR Deletion proposed; Filing window Closing date: ;

John F.X. Browne & Associates, Inc. Page 4

Giana Michigan June 7, 1997

F.X. Browne & Association

Bloomfield Hills, Michigan

Latitude: 40-02-36 TITLE: WHSP Channel 66 Zone I Longitude: 75-14-08

Call Auth Licensee name Chan ERP HAAT-m Latitude BR-to Dist. Req. City of License St FCC File No. Zone (kW) HAMSL Longitude -from (km) (km) ALLOC 74 53-33-00 310.6 3225 80.50 II 113-30-00 102.1 3144 CLEAR EDMONTON AB

Filing window Closing date: ;

80 53-33-00 310.6 3225 ALLOC 113-30-00 102.1 II EDMONTON AB NTSC

Filing window Closing date: ;

>> End of Channel 66 Study <<

